K.o
9/20/

DECLARATION FOR THE RECORD OF DECISION AMENDMENT

Site Name and Location

Fisher-Calo
Kingsbury, Indiana

Statement of Basis and Purpose

This decision document, along with the Record of Decision dated August 7, 1990, represent the selected remedial action for the Fisher-Calo site in Kingsbury, Indiana, which was chosen in accordance with the requirements of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

This decision document explains the factual and legal basis for amending the 1990 Record of Decision for this site. The attached index identifies the items which comprise the administrative record upon which the selection of the modified remedial action is based.

The State of Indiana concurs with the modifications to the selected remedy for the Fisher-Calo site.

Description of the Selected Remedy

The primary reason for amending the 1990 Record of Decision (ROD) is to reflect the changes in the soil portion of the site remedy. The amended remedy includes dealing with the principal threats posed at the site by: (1) site fencing around contaminated soil areas; (2) soil vapor extraction to treat areas contaminated with volatile organic compounds (VOCs); (3) air injection wells and bioremediation to treat areas contaminated with semi-volatile organic compounds (SVOCs); (4) excavation and off-site disposal of PCB contaminated soils; (5) excavation and off-site disposal of buried drums and containers; (6) groundwater collection, treatment and discharge; (7) a comprehensive site monitoring program to assure public health and safety; and (8) installation of a replacement water supply well.

The major components of the amended remedy and those components in the 1990 ROD which have been changed due to this amendment include:

* Installation of security fences around the contaminated soil areas on the One-Line Road property, the Two-Line Road property and the Space Leasing property.

* Soil vapor extraction of volatile organic compounds (VOCs) in contaminated soil areas on the One-Line Road property, the Two-Line Road property and the Space Leasing property. The soils would be treated, as outlined in the remedial design work plan, to allow attainment of established ground water cleanup levels. The 1990 ROD listed soil flushing or soil vapor extraction as treatments for the soils contaminated with VOCs.

* Installation of air sparging injection wells and use of bioremediation of soil areas contaminated with semi-volatile organic compounds (SVOCs) on One-Line Road property and Two-Line Road property. The 1990 ROD required that soils contaminated with SVOCs be excavated and incinerated.

* Excavation and off-site disposal of PCB contaminated soils on One-Line Road property. The soils will be disposed of in a permitted hazardous waste landfill. The 1990 ROD required that PCB contaminated soils be excavated and incinerated.

* A buried drum investigation in two areas on the One-Line Road property and the Space Leasing property. Testing shall be done to determine where buried drums and/or containers may have come to be located. Drums, containers and container contents shall be excavated and properly disposed. Contaminated soils in the buried drum areas shall be identified and treated.

* Installation of an extraction well network to remove contaminated groundwater. Following extraction, the contaminated groundwater will be pumped through a piping system to a groundwater treatment facility. The groundwater will be treated in order to meet appropriate USEPA and State of Indiana requirements. After treatment, the water will be discharged into nearby Travis Ditch. The 1990 ROD listed the groundwater remedy as extraction, treatment and re-injection of treated groundwater to the underlying aquifer.

* Installation of a groundwater monitoring well system to determine the effectiveness of the remedy, and provide public health and safety. The monitoring well system will be used

to assure that the treatment system is containing the groundwater plumes, and will be utilized until groundwater drinking standards are met.

* A new production well capable of producing at least 500 gallons per minute. This well is needed to replace the capacity of an existing production well (well A) previously closed due to contamination.

Declaration of Statutory Determinations

The selected remedy, as modified herein, is protective of human health and the environment, complies with Federal and State requirements that are legally applicable or relevant and appropriate to the remedial action, and is cost-effective.

This remedy satisfies the statutory preference for remedies that employ treatment that reduce toxicity, mobility or volume as a principal element, and utilize permanent solutions and alternative treatment technologies to the maximum extent practicable.

Consistent with Section 121(C) of CERCLA, a review will be conducted within five years after commencement of remedial action to ensure that the remedy continues to provide adequate protection of human health and the environment.

SEP 26 1997

Date

for William E. Muno, Director
Superfund Division
Region V

RECORD OF DECISION AMENDMENT
FISHER-CALO SITE
KINGSBURY, INDIANA

I. INTRODUCTION

The United States Environmental Protection Agency (U.S. EPA) in cooperation with the Indiana Department of Environmental Management (IDEM), is amending the remedy outlined in the August 7, 1990 Record of Decision (ROD) for the Fisher-Calo Superfund site. The primary reason for the amendment is that the soil portion of the remedy is being changed. This document outlines the changes to the 1990 ROD.

II. LOCATION AND DESCRIPTION

The Fisher-Calo site is located in the Kingsbury Industrial Development Park (KIDP) in La Porte County, Indiana. The KIDP is located in the southeast section of La Porte County, approximately 12 miles southeast of La Porte, Indiana. The communities of Kingsbury, 1.9 miles to the northwest, and Kingsford Heights, 1.6 miles to the southwest, are the major population centers located near the site.

The Fisher-Calo site is located on three areas at KIDP: the One-Line Road property, the Two-Line Road property and the Space Leasing property. The Kingsbury Park One-Line Road property is bordered to the north and south by grasslands and buildings. The area west of the One-Line property contains scattered woodlands and fields. Travis Ditch and Kingsbury Creek parallel the western border of the facility.

The KIDP Two-Line Road property is located one mile east of the One-Line property. The land between the One-Line property and Two-Line property, as well as along the eastern and southern side of the Two-Line facility, is often under cultivation with corn or soybeans. The area north of the Two-Line property and across Hupp Road (the main road in and out of the complex) is the site of abandoned munitions bunkers surrounded by grassland. To the south of the facility, the land consists of scattered woodlands and grassland.

The Space Leasing property is approximately three miles east of the Two-Line Road property on the north side of Hupp Road, and is surrounded by munitions bunkers to the west and cropland to the north and south. To the east of Space Leasing, at the end of Hupp

Road, is the Kingsbury Fish and Wildlife area operated by the Indiana Department of Natural Resources.

A number of private wells are located at or near the Fisher-Calo site. Three production wells are located on the site proper and several residential and municipal wells are installed west and southwest of the site.

III. SITE HISTORY AND ENFORCEMENT ACTIVITIES

The 1990 Record of Decision sets forth a summary of the history for the Fisher-Calo site up to its time of issuance. The following activities have occurred at the site since the ROD was signed.

Environmental investigations during remedial design determined that the Fisher-Calo site contained four contaminated soil areas, two other areas with approximately 3,500 buried drums, and four distinct groundwater plumes. Two of the contaminated soil areas contained volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs), the third soil area contained only VOCs, and the fourth area was contaminated with SVOCs and polychlorinated biphenyls (PCBs). The buried drum area on the south end of the One-Line property was contaminated with VOCs and SVOCs, while the other buried drum area at Space Leasing was contaminated with VOCs. Two of the groundwater plumes were found beneath One-Line Road property, one plume beneath Two-Line property, and the other plume beneath Space Leasing property. All four groundwater plumes were contaminated primarily with VOCs. (Refer to site figures.)

A number of remedy activities have taken place since the 1990 ROD. A soil vapor extraction (SVE) system is operational at a contaminated soil area on Two-Line Road. Approximately 500 cubic yards of PCB contaminated soils were excavated and disposed of off-site to a permitted facility; this was done because of the low volume involved. A buried drum investigation at One-Line Road and Space Leasing revealed approximately 3500 drums. These drums and contents have been excavated, analyzed and disposed of at permitted off-site waste facilities. All of the contaminated soil areas have been analyzed and security fences have been put up around each area to assure public health and safety.

As of the result of the low volume of PCB contaminated soils being taken to an off-site disposal facility, it was determined by U.S. EPA and IDEM that incineration was no longer a cost effective method to treat the contaminated soils at the site. Air sparging wells utilizing bioremediation were determined to be effective in treating the semi-volatile organic compounds remaining at the

site. Soil vapor extraction remained an effective treatment for the volatile organic compounds at the site. This is the primary reason for the ROD Amendment. It was also determined that the effluent from the groundwater pump and treatment plant outlined in the 1990 ROD should be discharged into nearby Travis Ditch rather than be re-injected back into the underlying aquifer.

IV. COMMUNITY RELATIONS

U.S. EPA published a Proposed Plan of this ROD Amendment in accordance with CERCLA Section 117 and the National Contingency Plan (NCP) Section 300.435(C)(2)(ii). The Proposed Plan was made available for a 30 day public comment period from August 25 through September 23, 1997 and a public meeting was held in La Porte, Indiana on September 16, 1997. An Administrative Record containing documents of relevance to this ROD Amendment has been made available at the La Porte Public Library located at 904 Indiana Avenue, and at the U.S. EPA Region V office record center at 77 W. Jackson Boulevard, Chicago, IL.

V. SUMMARY OF RATIONALE FOR CHANGING ORIGINAL REMEDY

The 1990 ROD estimated that approximately 30,000 cubic yards of PCB and SVOC contaminated soil would need to be excavated and incinerated on-site. Sampling done during the remedial design determined that approximately 500 cubic yards of PCB contaminated soil existed on-site. Additional sampling determined that the SVOCs found at Fisher-Calo were bis(2-ethylhexyl)phthalate, isophorone, 2-methylnaphthalene and naphthalene.

Treatability studies carried out during the remedial design both in the laboratory and in the field determined that all the SVOCs found at the Fisher-Calo site were biodegradable. The method of bioremediation used in the lab and field tests was biological destruction of the compounds by induced air flow in the subsurface, commonly referred to as air sparging.

Since bioremediation techniques such as air sparging are not effective treatments for PCB contaminated soils, it was determined that some other treatment method would need to be utilized with the PCB soils in order to change this portion of the remedy from incineration to bioremediation. As a result of the low volume of PCB contaminated soils on-site, approximately 500 cubic yards, it was determined by U.S. EPA and IDEM that excavation and off-site disposal of the PCB soils in a permitted hazardous waste landfill was the best method of remediation. Off-site disposal was also chosen because the PCB soils were located on a regularly used truck loading dock drive way.

VI. DOCUMENTATION OF FUNDAMENTAL CHANGES

This ROD Amendment addresses fundamental changes to the remedy outlined in the 1990 Record of Decision for the Fisher-Calo site. Most of the elements of the 1990 ROD do not change and some less significant changes have taken place. Therefore, the findings in the 1990 ROD remain the same except for the changes described in this ROD Amendment.

The differences between the remedy selected in the 1990 ROD for Fisher-Calo and the remedy selected in this Amendment are as follows:

1) This Amendment involves the excavation and off-site disposal of PCB contaminated site soils at a permitted hazardous waste facility. The 1990 ROD required that PCB contaminated soils be excavated and incinerated.

2) This Amendment involves bioremediation of semi-volatile organic compound (SVOC) contaminated soils at the site using air sparging injection wells. The 1990 ROD required that SVOC contaminated soils be excavated and incinerated.

3) This Amendment involves treating volatile organic compound (VOC) contaminated soils using soil vapor extraction. The 1990 ROD listed soil flushing or soil vapor extraction as treatments for the VOC contaminated soils.

4) This Amendment involves the extraction of contaminated groundwater, treatment and discharge of treated groundwater to Travis Ditch. The treated groundwater will be required to meet Indiana discharge limits based on regulations through National Pollutant Discharge Elimination System (NPDES) permits before being discharged to Travis Ditch. The 1990 ROD listed the groundwater remedy as extraction, treatment and re-injection of treated groundwater to the underlying aquifer.

Other fundamental portions of the 1990 Fisher-Calo ROD which remain the same are summarized below:

1) Installation of security fences around all contaminated soil areas to assure public health and safety.

2) Investigation, excavation and off-site disposal of buried drum containers and their contents.

3) Installation of a water supply well capable of producing

500 gallons per minute. This well replaces a production well previously shut down due to groundwater contamination.

4) A comprehensive site groundwater and soil monitoring program to assure public health and safety, and the effectiveness of the remedy.

SUMMARY OF FISHER-CALO 1990 ROD CHANGES

1990 Rod	Rod Amendment
Excavation and incineration of PCB and SVOC contaminated soil.	Bioremediation of SVOC and off-site disposal of PCB soil.
Soil flushing or soil vapor extraction of VOC contamination.	Soil vapor extraction to treat VOC contaminated soil.
Extraction, treatment and reinjection of groundwater.	Extraction, treatment and discharge to Travis Ditch.

VII. EVALUATION OF ALTERNATIVES

U.S. EPA and IDEM use nine criteria to evaluate remedy alternatives and changes at Superfund sites. The criteria are:

OVERALL PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT addresses whether a remedy provides adequate protection and describes how risk posed through each pathway are eliminated, reduced or controlled through treatment, engineering controls or institutional controls.

COMPLIANCE WITH APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS) addresses whether a remedy will meet all other Federal and State environmental statutes and/or provide grounds for issuing a waiver.

LONG-TERM EFFECTIVENESS AND PERMANENCE refers to the amount of risk remaining at a site and the ability of a new remedy to maintain reliable protection of human health and the environment, over time, once cleanup goals have been met.

REDUCTION OF TOXICITY, MOBILITY, OR VOLUME THROUGH TREATMENT is the anticipated performance of the treatment technologies that may be employed in a remedy

SHORT-TERM EFFECTIVENESS refers to the speed with which the remedy achieves protection, as well as the remedy's potential to create

adverse impacts on human health and the environment that may result during the construction and implementation period.

IMPLEMENTABILITY is the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement the chosen solution

COST addresses the estimated capital and operation and maintenance costs, as well as a present worth cost. Present worth is the total cost of an alternative in terms of today's dollars.

SUPPORT AGENCY ACCEPTANCE indicates whether, based on its review of the Proposed Plan, the support agency concurs with, opposes, or has no comment on the recommended alternative.

COMMUNITY ACCEPTANCE will be assessed in the Record of Decision amendment following a review of the public comments received on the Proposed Plan.

Below is an evaluation table using the nine criteria to profile the remedy listed in the 1990 Fisher-Calo ROD against the remedy in the ROD Amendment.

EVALUATION CRITERIA	1990 ROD	ROD AMENDMENT
1. Overall Protection of Health & Environment	Fully meets criteria	Fully meets criteria
2. Compliance with ARARs	Fully meets criteria	Fully meets criteria
3. Long-Term Effectiveness & Permanence	Fully meets criteria	Fully meets criteria
4. Reduction of Toxicity, Mobility or Volume	Partially meets criteria	Partially meets criteria
5. Short-Term Effectiveness	Partially meets criteria	Partially meets criteria

6. Implementability	Fully meets criteria	Fully meets criteria
7. Cost	$31.7 million	$30 million
8. Support Agency Acceptance	Partially meets criteria	Fully meets criteria
9. Community Acceptance	Partially meets criteria	Fully meets criteria

VIII. STATUTORY DETERMINATIONS

Based on the information available at this time, U.S. EPA and IDEM believe the amended remedy listed satisfies the statutory requirements specified in Section 121 of CERCLA to: protect human health and the environment; attain ARARs, be cost-effective; and utilize permanent solutions and alternative treatment technologies to the maximum extent practicable.

Protectiveness

The selected remedy will be protective to both human health and the environment by completely and permanently treating, containing or immobilizing all contaminated wastes. Excavation and off-site disposal of PCB contaminated areas, buried drum containers and container contents will permanently eliminate contamination from the site. Soil vapor extraction and air sparging bioremediation of contaminated soil areas will permanently treat the waste areas. Site area fencing will assure protectiveness of human health while the treatment takes place. Groundwater extraction, treatment and discharge will contain, treat and eliminate the off-site migration of groundwater contamination. The installation of a monitoring well system will determine the effectiveness of the remedy and assure public safety.

Attainment of Applicable or Relevant and Appropriate Requirements

The Superfund Amendments and Reauthorization Act (SARA) requires that remedial actions meet legally applicable or relevant and appropriate requirements of other environmental laws. These laws may include: the Toxic Substances Control Act, the Safe Drinking Water Act, the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act (RCRA), and any state law which has stricter requirements than the corresponding federal law.

The ARARs that were identified in the 1990 ROD remain the ARARs for the amended remedy, with one change. Since incineration is no

longer being utilized at the Fisher-Calo site, the RCRA Subtitle C ARARs for hazardous waste incinerator operations would no longer be included.

The Clean Water Act ARARS listed in the 1990 ROD would apply for the discharge of treated groundwater to Travis Ditch. Indiana Water Quality Standards for NPDES permits would apply to this discharge water.

Cost Effectiveness

The amended remedy is more cost effective than the remedy listed in the 1990 ROD because it utilizes air sparging bioremediation instead of incineration to treat the SVOC contaminated soils. It is estimated that this remedy change will result in a savings of $5-7 million. The current cost estimate of $30 million includes this savings as well as the estimated $5.5 million cost for additional site contamination found since the ROD. The additional contamination includes a fourth groundwater plume and 3500 buried drums.

Utilization of Permanent Solutions and Alternative Treatment Technologies to the Maximum Extent Practicable

The amended remedy when compared to the 1990 ROD utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable. Bioremediation is a permanent treatment solution and is considered an alternative treatment technology when compared with incineration.

Preference for Treatment as a Principle Element

The amended remedy satisfies the statutory preference for remedies that employ treatment which achieve risk reduction through containment and elimination of contamination. Bioremediation of SVOC contaminated soils can take place without disturbing the soil areas, while incineration requires the excavation and thermal destruction of the contaminated soil areas.

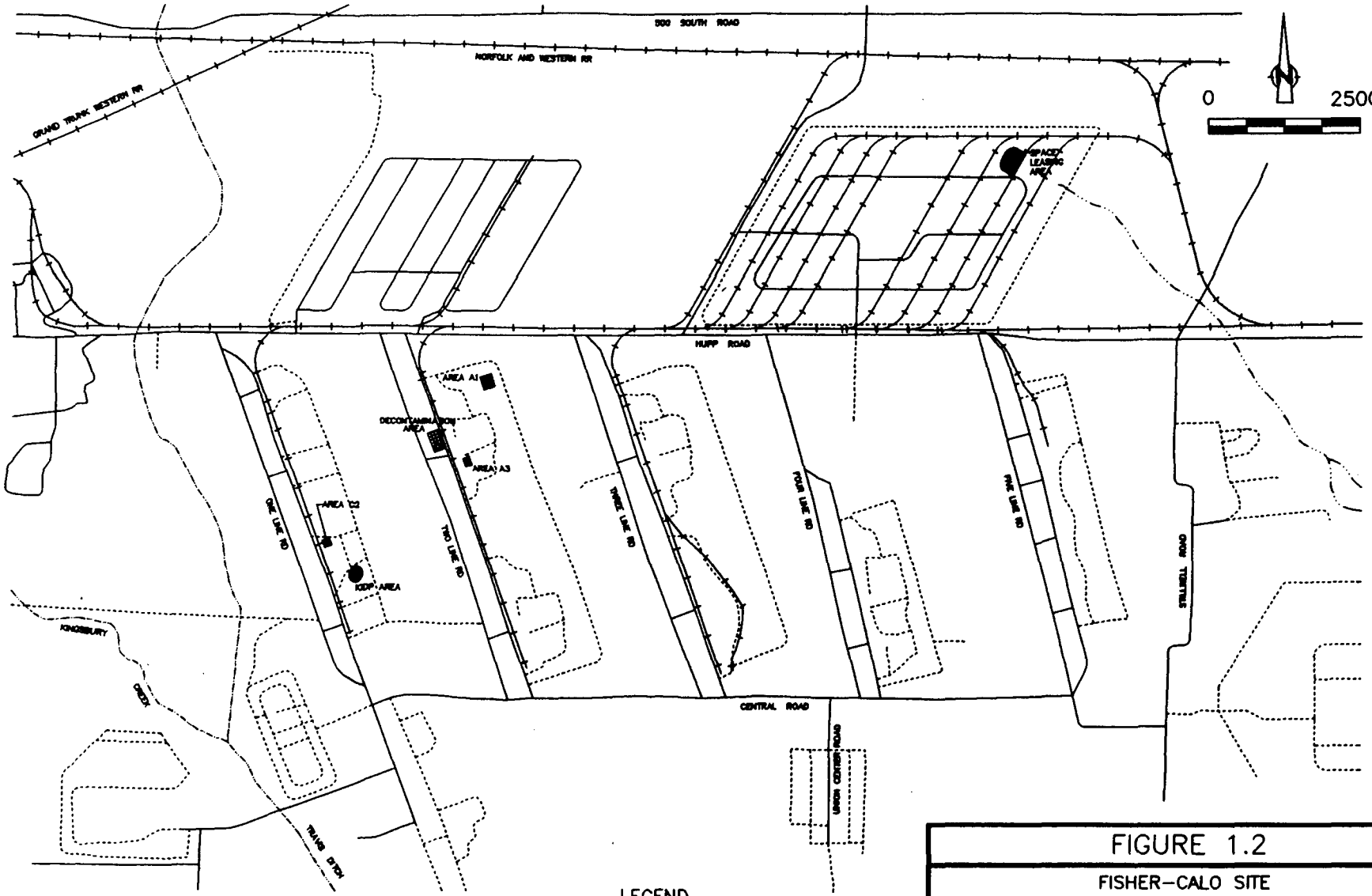

FIGURE 1.2

FISHER-CALO SITE

SITE LOCATION MAP

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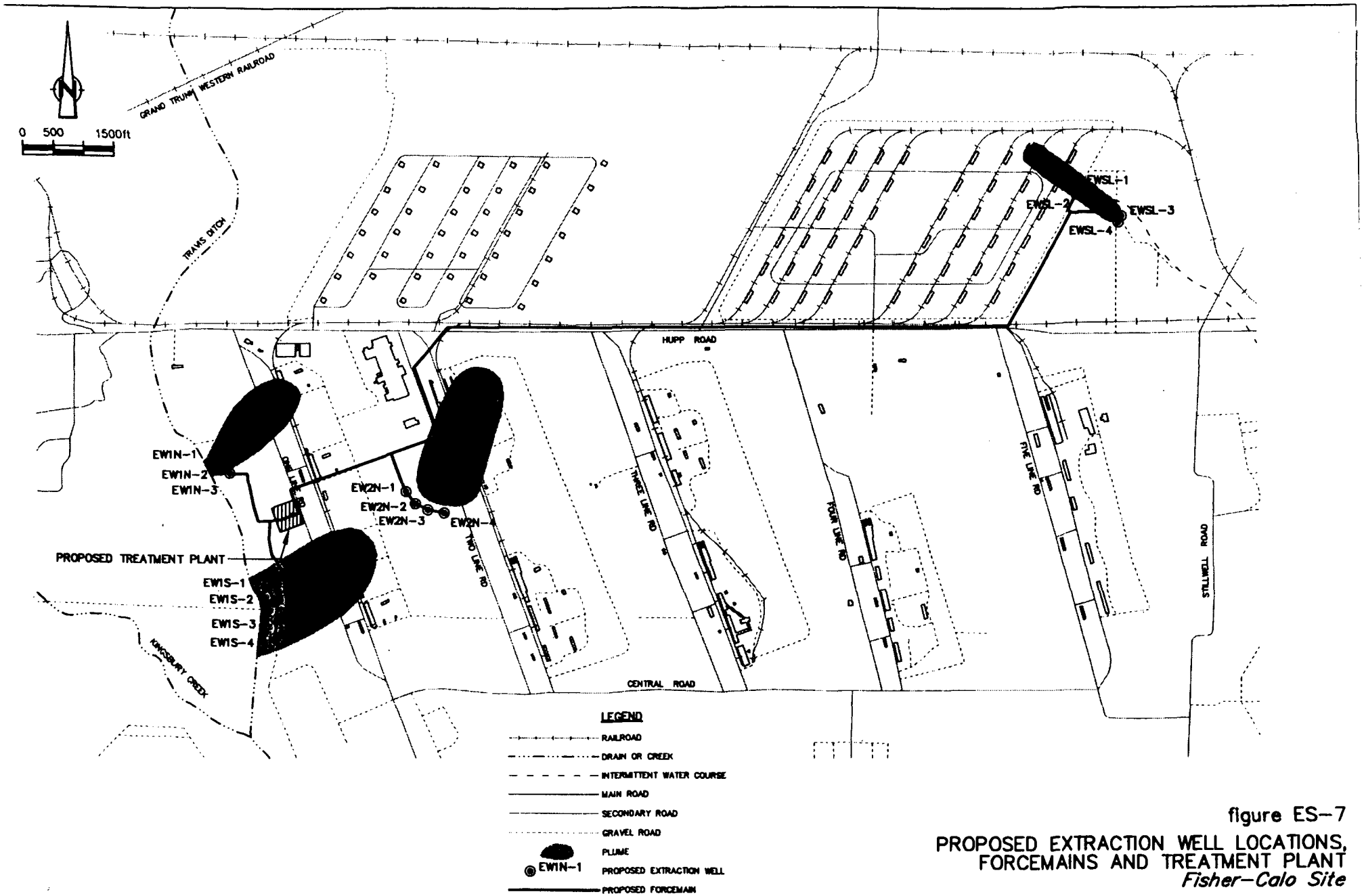

figure ES-7

PROPOSED EXTRACTION WELL LOCATIONS, FORCEMAINS AND TREATMENT PLANT

Fisher-Calo Site